

**Remarks/Arguments:**

The present invention relates to a vehicle remote control apparatus. Specifically, the remote control apparatus is used for controlling the door lock of a vehicle.

On page 2 of the Office Action, claims 1-5 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Watarai et al (U.S. Pat. No. 6,831,547). It is respectfully submitted, however, that the claims are patentable over the art of record for the reasons set forth below.

Watarai teaches a vehicle equipment remote control system. Specifically, Watarai's system has transmitting antennas mounted on a vehicle and a remote control device that is able to lock and unlock the vehicle doors.

Applicants' invention, as recited by claim 1, includes a feature which is neither disclosed nor suggested by the art of record, namely:

**wherein the first transmitter and the second transmitter  
exchange the first function and the second function  
when the receiver does not receive an authentication  
response signal for a predetermined period of time.**

Claim 1 relates to a vehicle remote control apparatus which includes a first transmitter and a second transmitter. Specifically, the first transmitter outputs an authentication request signal to a mobile device and at the same time the second transmitter outputs an interference wave which effectively cancels the authentication request signal. If the receiver of the apparatus does not receive an authentication response signal from the mobile device after a predetermined period of time, the first transmitter and second transmitter exchange their functions (first transmitter begins outputting an interference wave whereas the second transmitter begins outputting an authentication request signal). This feature is found in the originally filed application on page 6, line 15, to page 7, line 18. No new matter has been added.

In column 5, lines 10-17, Watarai teaches a system wherein a prohibition signal is transmitted from an antenna and an authentication signal is transmitted

from another antenna (*"the prohibition signals from the vehicle interior transmitter 3 and the vehicle exterior transmitter 2L on the left side are transmitting continuously while the request signal is being transmitted from the vehicle exterior transmitter 2R on the right side"*). Watarai's teachings are similar to Applicants' claim 1 where a first transmitter and a second transmitter are recited (*"a first transmitter for outputting an authentication request signal...a second transmitter for outputting an interference wave canceling the authentication request signal"*). Applicants' claim 1 is different than Watarai, because the addition of the first transmitter and second transmitter and second transmitter exchange their functions after a predetermined time as previously recited in claim 3 and presently recited in amended claim 1 (*"the first transmitter and the second transmitter exchange the first function and the second function when the receiver does not receive an authentication response signal for a predetermined period of time"*). Applicants' functional exchanging is a process wherein the first transmitter is transmitting the authentication signal (first function) and the second transmitter is transmitting the prohibition signal (second function) and after a predetermined time they exchange functions (first transmitter outputs the prohibition signal and second transmitter outputs the authentication signal). This feature is supported in the specification on page 7, lines 9-12 (*"if no response is obtained...it shifts the transmitter outputting the authentication request signal and the transmitter outputting the interference signal"*).

On page 4 of the Office Action, the Examiner states that the claimed functional exchanging feature is taught by Watarai on column 7, lines 66-67, through column 8, lines 1-6. Applicants respectfully disagree, because Watarai teaches that the other antennas start to transmit the prohibition signal after a predetermined time (*"within the predetermined period of time after transmission of the request signal...is completed the other transmitters transmit prohibition signals"*). For example, Watarai teaches that transmitter 2L may be transmitting the request signal and after a predetermined amount of time the other transmitters 2R and 3 start transmitting the prohibition signal. Therefore there is no **exchange** of functionality between any of the antennas.

It is because Applicants include the feature of "the first transmitter and the second transmitter exchange the first function and the second function when the receiver does not receive an authentication response signal for a predetermined

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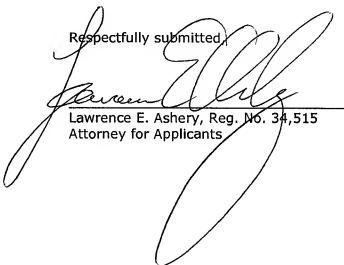
period of time", that the following advantages are achieved. An advantage is the ability for the owner of the mobile device to prevent an on vehicle transmitter to allow a stranger to use the vehicle. Accordingly, for the reasons set forth above, claim 1 is patentable over the art of record.

Claim 7 has been similarly amended to claim 1. Thus, claim 7 is also patentable over the art of record for the reasons set forth above.

Claims 2 and 4-6 include all the features of claim 1 from which they depend. Thus, claims 2 and 4-6 are also patentable over the art of record for the reasons set forth above.

In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,



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